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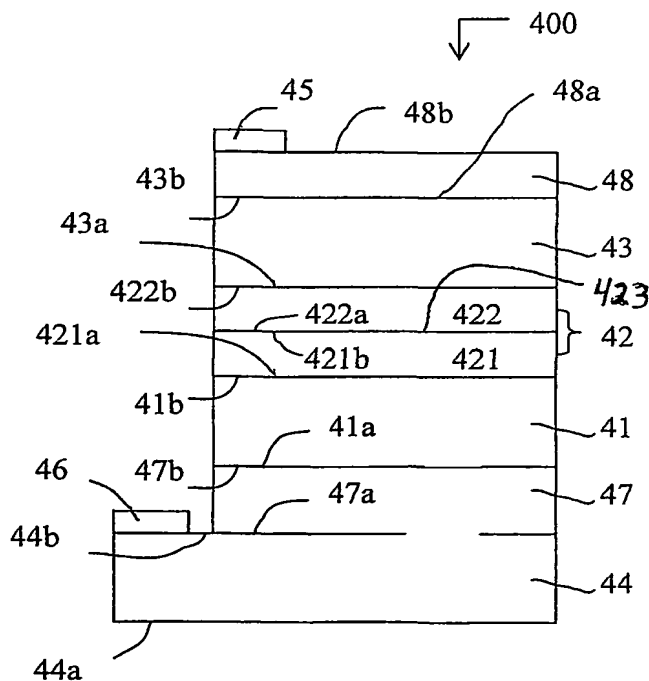
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(54) Title: **PHOTOTRANSISTORS, METHODS OF MAKING PHOTOTRANSISTORS, AND METHODS OF DETECTING LIGHT**



(57) Abstract: A phototransistor (400) comprises an emitter (43) comprising antimony, a base (42) comprising antimony, and a collector (41) comprising antimony. Preferably, the emitter, the base and the collector each comprises at least one of AlInGaAsSb, AlGaAsSb, AlGaSb, GaSb and InGaAsSb. The base comprises an emitter-contacting portion (422b) which is in contact with a base-contacting portion (43a) of the emitter. The collector comprises a base-contacting portion (41b) which is in contact with a collector-contacting portion (421a) of the base. The phototransistor produces an internal gain upon being contacted with light within a receivable wavelength range, preferably greater than 1.7 micrometers. Also, a method of making such a phototransistor, and a method of detecting light using such a phototransistor.

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